

REMARKS

The applicants originally submitted claims 1-9 in this application. In this response to the current Office Action, the applicants have amended claims 1, 4, 5 and 7. Accordingly, claims 1-9 remain pending in this application.

The Examiner rejected claims 1-9 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicants regard as the invention. More specifically, the Examiner notes unclear language in claim 1, line 5. In response, the applicants have amended claim 1, line 5 to replace the cited language “to from” with new language “to form.” The applicants respectfully submit that claim 1 is clear in view of the amendment.

Also, the Examiner notes that the language “further comprises” in claims 4, 5 and 7 is not understood. In response, the applicants have amended claims 4, 5 and 7 to remove the word “further” from the language at issue. In view of these amendments, the applicants respectfully submit that it is clear that claims 4, 5 and 7 are not claiming “further” steps but are defining more clearly steps that already have been claimed.

In view of these amendments, the applicants respectfully submit that claims 1-9 are clear, and respectfully request that the Examiner withdraw the rejection under 35 U.S.C. §112.

The Examiner rejected claims 1-6 and 8-9 under 35 U.S.C. §103(a) as being unpatentable over Backer et al. (U.S. Patent No. 5,180,411) in view of Tuminaro (U.S. Patent No. 6,496,627). The applicants respectfully traverse the rejection in view of the remarks set forth below.

The Examiner states that Backer et al. do not teach exposing the drawn fiber to deuterium at room temperature, but that Tuminaro discloses that deuterium exposure results in improved long term signal attenuation performance. Also, the Examiner states that Tuminaro, at col. 17, lines 56-59, discloses deuterium exposure at room temperature.

The applicants respectfully submit that Tuminaro does not teach or suggest deuterium exposure at room temperature. The cited language, and

Tuminaro in general, teach of deuterium exposure at a specified (calculated) set of parameters, including a specified temperature. Such specified temperature is different from ambient or room temperature. See, e.g., step 1713 of Fig. 17, in which the exposure chamber is returned to ambient (room) temperature conditions once the fiber has been exposed to deuterium at the specified temperature for the specified exposure time. Nothing in Tuminaro teaches or suggests exposing optical fiber to deuterium at room temperature for any specified amount of time.

More specifically, the cited language at col. 17, lines 56-59 refers to a portion of the method that includes inserting optical fiber into a chamber and then setting specified chamber parameters, including a specified chamber temperature (step 1709). The specified parameters are calculated parameters (step 1708). Once the specified temperature is set, air is removed from the chamber and replaced with a gas mixture including deuterium (steps 1710 and 1711). Once the optical fiber has been exposed to the gas mixture for the specified period of time, the chamber is returned to ambient (room) temperature (col. 17, line 58) and the deuterium gas mixture is evacuated from the chamber and replaced with ambient temperature air (steps 1713 and 1714). As stated previously herein, such method steps do not teach or suggest exposing optical fiber to deuterium at room temperature.

Accordingly, the applicants respectfully submit that Backer et al. in view of Tuminaro does not teach or suggest the applicants' invention as recited in claim 1. Claims 2-6 and 8-9 depend directly or indirectly from claim 1 and incorporate all of the subject matter of claim 1. Thus, claims 2-6 and 8-9 are patentably distinct over the cited art for at least all of the reasons discussed above in connection with claim 1. Moreover, claims 2-6 and 8-9 include other features that, when combined with the subject matter of claim 1, are not shown in or suggested by the art of record.

Therefore, the applicants respectfully request that the Examiner withdraw the rejection of claims 1-6 and 8-9 under 35 U.S.C. §103 over Backer et al. in view of Tuminaro.

The Examiner also rejected claims 1 and 7 under 35 U.S.C. §103(a) as being unpatentable over Oyobe et al. (U.S. Patent No. 5,262,365) in view of Tuminaro and Baumgart (U.S. Patent No. 4,820,322). The applicants respectfully traverse the rejection in view of the remarks set forth below.

The Examiner states that Oyobe et al. do not teach exposing the drawn fiber to deuterium at room temperature but that, as before, Tuminaro discloses that deuterium exposure results in improved long term signal attenuation performance. As discussed previously herein, Tuminaro teaches deuterium exposure at a specified (calculated) temperature, which specified temperature is some temperature other than room temperature and, therefore, Tuminaro does not teach or suggest the applicants' exposure of optical fiber to deuterium at room temperature. Accordingly, just as Tuminaro combined with Backer et al. does not teach the applicants' invention as recited in claim 1, the combination of Tuminaro with Oyobe et al. likewise does not teach the applicants' invention as recited in claim 1. Baumgart, which is cited for overcladding an optical fiber preform made by MCVD, does not cure the deficiencies of Tuminaro with respect to the applicants' use of deuterium exposure at room temperature. Accordingly, the combination of Oyobe et al. with both Tuminaro and Baumgart does not teach or suggest the applicants' invention as recited in claim 1.

Claim 7, which depends indirectly from claim 1 and incorporates all of the subject matter of claim 1, is patentably distinct over the cited art for at least all of the reasons discussed above in connection with claim 1. Moreover, claim 7 includes other features that, when combined with the subject matter of claim 1, are not shown in or suggested by the art of record.

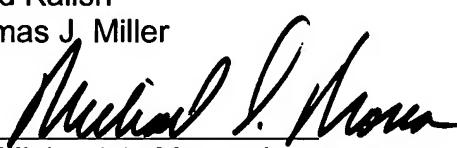
Therefore, the applicants respectfully request that the Examiner withdraw the rejection of claims 1 and 7 under 35 U.S.C. §103 over Oyobe et al. in view of Tuminaro and Baumgart.

The applicants submit that all claims now are in patentable form, and respectfully urge that all the claims be allowed and the application be passed to issue. If the Examiner disagrees, the Examiner is invited to call the attorney for the applicants at the telephone number provided below.

Finally, the applicants have submitted herewith an Information Disclosure Statement, Forms PTO/SB/08A and PTO/SB/08B, citing the foreign patent document EP 1 182 176 A1 and the non-patent literature document J.E. Shelby et al., "Radiation-Induced Isotope Exchange in Vitreous Silica," J. Appl. Phys., Vol. 8 No. 50, August 1979, pages 5533-5535, United States. Both references were cited in the applicants' original Information Disclosure Statement, but the Examiner indicated that no copy of either reference was provided. The applicants have included herewith copies of both references and respectfully request that both references be considered.

Respectfully,

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